

(f) **TERMINATION.**—On termination of activities under section 205—

(1) the Federal Land Disposal Account shall be terminated; and

(2) any remaining balance in the account shall become available for appropriation under section 3 of the Land and Water Conservation Fund Act (16 U.S.C. 4601–6).

**SEC. 207. SPECIAL PROVISIONS.**

(a) **IN GENERAL.**—Nothing in this title provides an exemption from any limitation on the acquisition of land or interest in land under any Federal Law in effect on the date of enactment of this Act.

(b) **OTHER LAW.**—This title shall not apply to land eligible for sale under—

(1) Public Law 96–568 (commonly known as the “Santini-Burton Act”) (94 Stat. 3381); or

(2) the Southern Nevada Public Land Management Act of 1998 (112 Stat. 2343).

(c) **EXCHANGES.**—Nothing in this title precludes, preempts, or limits the authority to exchange land under authorities providing for the exchange of Federal lands, including but not limited to—

(1) the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.); or

(2) the Federal Land Exchange Facilitation Act of 1988 (102 Stat. 1086) or the amendments made by that Act.

(d) **NO NEW RIGHT OR BENEFIT.**—Nothing in this Act creates a right or benefit, substantive or procedural, enforceable at law or in equity by a party against the United States, its agencies, its officers, or any other person.

The Committee amendment in the nature of a substitute was agreed to.

The bill (S. 1892), as amended, was passed.

The title was amended so as to read:

A bill to provide for a land conveyance to the City of Craig, Alaska, and for other purposes.

**METHANE HYDRATE RESEARCH AND DEVELOPMENT ACT OF 2000**

Mr. SESSIONS. Mr. President, I ask the Chair lay before the Senate a message from the House of Representatives on the bill (H.R. 1753) to promote the research, identification, assessment, exploration, and development of gas hydrate resources, and for other purposes.

The PRESIDING OFFICER laid before the Senate the following message from the House of Representatives:

*Resolved*, That the House agree to the amendment of the Senate to the title; and agree to the amendment of the Senate to the text to the bill (H.R. 1753) entitled “An Act to promote the research, identification, assessment, exploration, and development of gas hydrate resources, and for other purposes”, with the following amendment:

In lieu of the matter proposed to be inserted by the Senate amendment, insert the following:

**SECTION 1. SHORT TITLE.**

This Act may be cited as the “Methane Hydrate Research and Development Act of 2000”.

**SEC. 2. DEFINITIONS.**

In this Act:

(1) **CONTRACT.**—The term “contract” means a procurement contract within the meaning of section 6303 of title 31, United States Code.

(2) **COOPERATIVE AGREEMENT.**—The term “cooperative agreement” means a cooperative

agreement within the meaning of section 6305 of title 31, United States Code.

(3) **DIRECTOR.**—The term “Director” means the Director of the National Science Foundation.

(4) **GRANT.**—The term “grant” means a grant awarded under a grant agreement, within the meaning of section 6304 of title 31, United States Code.

(5) **INDUSTRIAL ENTERPRISE.**—The term “industrial enterprise” means a private, non-governmental enterprise that has an expertise or capability that relates to methane hydrate research and development.

(6) **INSTITUTION OF HIGHER EDUCATION.**—The term “institution of higher education” means an institution of higher education, within the meaning of section 102(a) of the Higher Education Act of 1965 (20 U.S.C. 1002(a)).

(7) **SECRETARY.**—The term “Secretary” means the Secretary of Energy, acting through the Assistant Secretary for Fossil Energy.

(8) **SECRETARY OF COMMERCE.**—The term “Secretary of Commerce” means the Secretary of Commerce, acting through the Administrator of the National Oceanic and Atmospheric Administration.

(9) **SECRETARY OF DEFENSE.**—The term “Secretary of Defense” means the Secretary of Defense, acting through the Secretary of the Navy.

(10) **SECRETARY OF THE INTERIOR.**—The term “Secretary of the Interior” means the Secretary of the Interior, acting through the Director of the United States Geological Survey and the Director of the Minerals Management Service.

**SEC. 3. METHANE HYDRATE RESEARCH AND DEVELOPMENT PROGRAM.**

(a) **IN GENERAL.**—

(1) **COMMENCEMENT OF PROGRAM.**—Not later than 180 days after the date of the enactment of this Act, the Secretary, in consultation with the Secretary of Commerce, the Secretary of Defense, the Secretary of the Interior, and the Director, shall commence a program of methane hydrate research and development in accordance with this section.

(2) **DESIGNATIONS.**—The Secretary, the Secretary of Commerce, the Secretary of Defense, the Secretary of the Interior, and the Director shall designate individuals to carry out this section.

(3) **COORDINATION.**—The individual designated by the Secretary shall coordinate all activities within the Department of Energy relating to methane hydrate research and development.

(4) **MEETINGS.**—The individuals designated under paragraph (2) shall meet not later than 270 days after the date of the enactment of this Act and not less frequently than every 120 days thereafter to—

(A) review the progress of the program under paragraph (1); and

(B) make recommendations on future activities to occur subsequent to the meeting.

(b) **GRANTS, CONTRACTS, COOPERATIVE AGREEMENTS, INTERAGENCY FUNDS TRANSFER AGREEMENTS, AND FIELD WORK PROPOSALS.**—

(1) **ASSISTANCE AND COORDINATION.**—In carrying out the program of methane hydrate research and development authorized by this section, the Secretary may award grants or contracts to, or enter into cooperative agreements with, institutions of higher education and industrial enterprises to—

(A) conduct basic and applied research to identify, explore, assess, and develop methane hydrate as a source of energy;

(B) assist in developing technologies required for efficient and environmentally sound development of methane hydrate resources;

(C) undertake research programs to provide safe means of transport and storage of methane produced from methane hydrates;

(D) promote education and training in methane hydrate resource research and resource development;

(E) conduct basic and applied research to assess and mitigate the environmental impacts of hydrate degassing (including both natural degassing and degassing associated with commercial development);

(F) develop technologies to reduce the risks of drilling through methane hydrates; and

(G) conduct exploratory drilling in support of the activities authorized by this paragraph.

(2) **COMPETITIVE MERIT-BASED REVIEW.**—Funds made available under paragraph (1) shall be made available based on a competitive merit-based process.

(c) **CONSULTATION.**—The Secretary shall establish an advisory panel consisting of experts from industrial enterprises, institutions of higher education, and Federal agencies to—

(1) advise the Secretary on potential applications of methane hydrate;

(2) assist in developing recommendations and priorities for the methane hydrate research and development program carried out under subsection (a)(1); and

(3) not later than 2 years after the date of the enactment of this Act, and at such later dates as the panel considers advisable, submit to Congress a report on the anticipated impact on global climate change from—

(A) methane hydrate formation;

(B) methane hydrate degassing (including natural degassing and degassing associated with commercial development); and

(C) the consumption of natural gas produced from methane hydrates.

Not more than 25 percent of the individuals serving on the advisory panel shall be Federal employees.

(d) **LIMITATIONS.**—

(1) **ADMINISTRATIVE EXPENSES.**—Not more than 5 percent of the amount made available to carry out this section for a fiscal year may be used by the Secretary for expenses associated with the administration of the program carried out under subsection (a)(1).

(2) **CONSTRUCTION COSTS.**—None of the funds made available to carry out this section may be used for the construction of a new building or the acquisition, expansion, remodeling, or alteration of an existing building (including site grading and improvement and architect fees).

(e) **RESPONSIBILITIES OF THE SECRETARY.**—In carrying out subsection (b)(1), the Secretary shall—

(1) facilitate and develop partnerships among government, industrial enterprises, and institutions of higher education to research, identify, assess, and explore methane hydrate resources;

(2) undertake programs to develop basic information necessary for promoting long-term interest in methane hydrate resources as an energy source;

(3) ensure that the data and information developed through the program are accessible and widely disseminated as needed and appropriate;

(4) promote cooperation among agencies that are developing technologies that may hold promise for methane hydrate resource development; and

(5) report annually to Congress on accomplishments under this section.

**SEC. 4. AMENDMENTS TO THE MINING AND MINERALS POLICY ACT OF 1970.**

Section 201 of the Mining and Minerals Policy Act of 1970 (30 U.S.C. 1901) is amended—

(1) in paragraph (6)—

(A) in subparagraph (F), by striking “and” at the end;

(B) by redesignating subparagraph (G) as subparagraph (H); and

(C) by inserting after subparagraph (F) the following:

“(G) for purposes of this section and sections 202 through 205 only, methane hydrate; and”;

(2) by redesignating paragraph (7) as paragraph (8); and

(3) by inserting after paragraph (6) the following:

“(7) The term ‘methane hydrate’ means—

“(A) a methane clathrate that is in the form of a methane-water ice-like crystalline material and is stable and occurs naturally in deep-ocean and permafrost areas; and

“(B) other natural gas hydrates found in association with deep-ocean and permafrost deposits of methane hydrate.”.

#### SEC. 5. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Secretary of Energy to carry out this Act—

(1) \$5,000,000 for fiscal year 2001;

(2) \$7,500,000 for fiscal year 2002;

(3) \$11,000,000 for fiscal year 2003;

(4) \$12,000,000 for fiscal year 2004; and

(5) \$12,000,000 for fiscal year 2005.

Amounts authorized under this section shall remain available until expended.

#### SEC. 6. SUNSET.

Section 3 of this Act shall cease to be effective after the end of fiscal year 2005.

#### SEC. 7. NATIONAL RESEARCH COUNCIL STUDY.

The Secretary shall enter into an agreement with the National Research Council for such council to conduct a study of the progress made under the methane hydrate research and development program implemented pursuant to this Act, and to make recommendations for future methane hydrate research and development needs. The Secretary shall transmit to the Congress, not later than September 30, 2004, a report containing the findings and recommendations of the National Research Council under this section.

#### SEC. 8. REPORTS AND STUDIES.

The Secretary of Energy shall provide to the Committee on Science of the House of Representatives copies of any report or study that the Department of Energy prepares at the direction of any committee of the Congress.

Mr. MURKOWSKI. Mr. President, we have a number of bills from my Committee on the Calendar that are ready for consideration, but I want to take a moment to say a few words about a bill I think has real potential for addressing the long-term energy needs of our nation. H.R. 1753, the Methane Hydrate Research and Development Act of 2000, would establish a small research program with the potential for a major payoff—energy security for the foreseeable future. Methane hydrates are rigid, ice-like solids of water surrounding a gas molecule, found at low temperatures and high pressures. When melted or depressurized, they release methane, pure natural gas, the same fuel we use to heat our homes and power our economy.

Significant quantities of methane hydrates have been detected all over the world. In the U.S., marine geologists have detected deposits of methane hydrates in deep sea sediments that lie off the coasts of the Carolinas, Louisiana, Texas, California, Oregon, and my home state of Alaska. We've also detected methane hydrates under the permafrost during conventional oil drilling operations in my home state of Alaska. The U.S. Geological Survey estimates that nearly 320,000 trillion

cubic feet of natural gas can be extracted from the methane hydrates found in the U.S. alone. Compare that to our existing reserves of cheap, clean natural gas—1,300 trillion cubic feet—and our annual use of natural gas—just 20 trillion cubic feet per year. Even if we can learn to recover just 1 percent of our methane hydrate reserves, we will more than triple our available natural gas reserves and guarantee a source of cheap, secure and clean energy for the next century and well beyond.

The problem is: we need fundamental research on these hydrates to understand how they form, and how the gas molecule can be released in a way that we can use. Even now, methane hydrates pose hazards to conventional oil and gas recovery. Hydrates determine the stability and strength of the sea floor—when the hydrates are destabilized, the resulting gas release can undermine oil platforms and sink drilling ships. Methane hydrates release 160 volumes of gas for every volume of hydrate—and many existing hydrate formations are very unstable. Even a small disturbance—an unintentional landslide—could release massive quantities of gas. Oil platforms in the Caspian Sea have been destroyed as a result of this kind of accidental release.

Methane hydrates also play a significant role in global climate change. Recent scientific research suggests that abrupt climate changes have occurred in the past as a result of release of methane gas from hydrates. They are an important part of the global carbon cycle, which we must ultimately understand in detail if we want to act responsibly to address the risk of climate change. Since natural gas releases fewer carbon atoms per unit of energy, replacing coal and oil usage with natural gas from methane hydrates also reduces our risk of climate change—some experts estimate we can reduce our carbon dioxide emissions by 20 percent just by fuel substitution alone. We can also learn about carbon sequestration through studying how methane hydrates form—perhaps even replacing methane hydrates used for energy with hydrates using carbon dioxide sequestered from the atmosphere.

All of these things point to the need for a fundamental methane hydrate research program of the kind proposed in this bill. I want to thank my good friends and colleagues on the Energy Committee, Senators AKAKA and CRAIG, for their leadership and recognition of the potential for methane hydrates to satisfy our future energy needs, enable our long-term energy security, and help us responsibly address the risk of climate change. Working with our colleagues in the House, we have been able to develop legislation that would authorize \$45 million in new funding for research in this important area. Anticipating passage of a bill like

this one, the Department of Energy has prepared an excellent multi-year research and development program plan that addresses all of the issues involved—with the goal of safe commercial production of energy from hydrates by 2010.

It is clear that we are not doing enough to explore the possibility of this exciting new energy source. Other nations of the world—Japan, Canada, India, Korea and Norway—are starting ambitious research programs. The Japanese began a drilling project of their own in November 1999, and expect that production can begin within 10 years, maybe sooner. The technology exists—Syntroleum, an Oklahoma company—has recently acquired a patent for a gas hydrate recovery system. All we need now is the sustained research to make it commercially viable.

For those reasons, Mr. President, I am glad that my colleagues here in the Senate will agree to pass the bill in the form passed by the House two weeks ago, so we can send it to the President for signature and get going on this important research program. Thanks to the leadership of Senators AKAKA and CRAIG, we may look back years from now on this day as the day we broke free of our dependence on foreign oil and guaranteed ourselves a clean energy source for many years to come.

Mr. SESSIONS. Mr. President, I ask unanimous consent the Senate agree to the amendment of the House to the Senate amendment.

The PRESIDING OFFICER. Without objection, it is so ordered.

#### THE CALENDAR

Mr. SESSIONS. Mr. President, I ask unanimous consent that the Senate now proceed to consideration en bloc of the following Energy Committee matters:

S. 1705, Calendar 492;

S. 1727, Calendar 493;

S. 1836, Calendar 495;

S. 1849, Calendar 496;

S. 1910, Calendar 498;

H.R. 1615, Calendar 499;

H.R. 3063, Calendar 500;

S. 1778, Calendar 508.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. SESSIONS. Mr. President, I ask unanimous consent that any committee amendments, where applicable, be agreed to, with the exception of S. 1727, which should be withdrawn, and a substitute amendment to S. 1727, which is at the desk, be agreed to, the bills be read three times and passed, as amended, if amended, any title amendments be agreed to, the motions to reconsider be laid upon the table, and that any statements related to any of these bills be printed in the RECORD, with the above occurring en bloc.

The PRESIDING OFFICER. Without objection, it is so ordered.